REMARKS

Claims 1 – 19 are pending in the application with claims 1 – 3, 8 – 13, and 19 being amended by this response. Claims 16-18 have been previously withdrawn. Support for the amendments is found throughout the specification and original claims, and more specifically on page 4, paragraph [15]; page 5, paragraph [20]; and page 9, paragraph [33] and elsewhere in the specification and drawing figures. Applicant respectfully submits that no new matter has been added by these amendments.

Rejection of Claims 9-12 under 35 U.S.C. § 112

Claims 9-12 are rejected under 35 U.S.C. 112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Amended independent claim 9 provides a processing device implemented system for sorting records associated with patient encounters with a healthcare organization. The system includes a document processor for receiving physical documents representing records associated with patient encounters with a healthcare organization and for appending identifiers to the received documents. Identifiers are automatically added to the received document to provide a processed document in response to examining the received document to determine whether an identifier in the received document is at least one of missing and unusable. The patient encounter comprises an interaction of a patient with a healthcare organization including a patient visit. The identifiers include an encounter identifier identifying a particular healthcare encounter of a particular patient, a medical record identifier identifying a patient medical record of said particular patient, and a patient record section identifier identifying a particular section of said patient medical record. The system further includes a collator for sorting the received documents based on identifiers appended to the received documents to provide sorted documents. The system also includes a storage processor for storing the sorted processed document in memory.

Claim 9 has been amended to clarify the features of the present system. Specifically, the document processor receives physical documents, which the collator, a device for sorting physical documents, sorts based on identifiers appended to those documents. Applicant respectfully submits that claim 9 complies with 35 U.S.C. 112, second paragraph, and requests that the rejection be withdrawn.

Claims 10 – 12 have been amended to depend on claim 9 rather than claim 1. Thus, all features of amended claims 10 – 12 have proper antecedent basis. Therefore, applicant respectfully requests that the rejection of claims 10 – 12 be withdrawn.

Rejection of Claims 1-8 under 35 U.S.C. § 101

Claims 1-8 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory matter.

The Office Action asserts that the claimed arrangement constitutes software per se, and thus is directed toward non-statutory subject matter. Applicant respectfully disagrees. The assertion in the Office Action relies on a partial definition of the unqualified term "processor" from the Application. The actual definition in the Application reads: "a device and/or set of machine readable instructions for performing a task. A processor comprises **any one** or combination of **hardware**, firmware, and/or software." (emphasis added)   The Examiner reads that passage as implying that claim 1 "is directed towards software per se" (Office Action page 5, lines 2 – 7). However, the present system recites in claim 1 not "a processor," but the hardware elements, "a document processor," "a sorting processor" and "an output processor." The Application defines a document processor as "[d]ocument processor 1700 comprises **a copier** for providing physical copies of provided paper documents, **a scanner** for obtaining an electronic document version of a paper document, and **a printer** for printing a paper copy of a document an/or record including the identifiers" (Application, page 6 para. [22]). Thus, the present system is not software per se, because it includes devices that constitute a machine or manufacture as required under 35 U.S.C. 101.

Moreover, amended claim 1 recites "a computer implemented system." In the computer implemented system, a document processor receives information and acts upon that information by analyzing and modifying the information for use by a sorting processor, an executable procedure implemented on a computer, or an information device, and then by routing the modified information to an output processor. The terms "document processor," "sorting processor" and "output processor" in claim 1 are further qualified as being part of a "computer implemented system." This means that they may exist as hardware, **OR** as a combination of hardware and software, wherein the software portions, executed on a general purpose computer, condition it to perform the specific functions identified in claim 1, as is well known in the art. The "computer implemented system" of claim 1 constitutes a machine or manufacture as required under 35 U.S.C. 101. Consequently, withdrawal of the rejection of claim 1 is respectfully requested.

Claims 2 – 8 are dependent on claim 1 and are considered patentable for the reasons presented above with regard to claim 1. Consequently, Applicant respectfully requests that the rejection of claims 2 – 8 be withdrawn.

Rejection of Claims 1-2, 5-8 and 19 under 35 U.S.C. § 102(b)

Claims 1-2, 5-8 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Johnson (U.S. Patent No. 5,664,109).

Amended claim 1 provides a computer implemented system for processing records associated with a patient encounter with a healthcare organization. The system includes a document processor for receiving a document representing a record associated with a patient encounter with a healthcare organization and for appending identifiers to the received document. Identifiers are appended by automatically adding identifiers to the received document to provide a processed document in response to examining the received document to determine whether an identifier in the received document is at least one of missing and unusable. The patient encounter comprises an interaction of a patient with a healthcare organization including a patient visit. The identifiers include an encounter identifier identifying a particular healthcare encounter of a particular patient, a medical record identifier identifying a patient medical record of the particular patient, and a patient record section identifier identifying a particular section of the patient medical record. The system further includes a sorting processor for sorting the processed document based on identifiers appended to the processed document to provide a sorted processed document. The system also includes an output processor for processing said sorted processed document, including appended identifiers, for output and storing said sorted processed document in memory. The system facilitates more efficient and timely processing of health care records, and particularly of the original physical documents that government and insurance regulations may motivate retaining.

Johnson describes a method performed at a centralized record keeping system location for extracting pre-defined data items from medical service records generated by a plurality of healthcare providers to facilitate sharing of information in records from disparate providers (Johnson col. 2 lines 14 – 37). Medical service providers send or transmit documents containing medical record information to a central data processing facility, which extracts information from the documents with the objective of building an electronic document that is then linked to a master patient record (Johnson col. 2 lines 38 – 65). When the document information cannot be extracted automatically, Johnson merely suggests that the document be labeled as anomalous and presented to a human interpreter (Johnson col. 9 lines 33 – 37 and col. 8 lines 17 – 31). As Johnson explicitly states, "[u]nique subject identifiers are not preassigned by the central record keeping system or used for linking" (Johnson col. 2 lines 20 – 22). Instead, Johnson relies on demographic data to determine when different documents should be associated with the same individual. Thus, Johnson teaches away from the claimed

system and fails to disclose or suggest "automatically adding identifiers to said received document . . . said identifiers including . . . a medical record identifier" that are sorted "based on identifiers appended" to the document as recited in claim 1.

The objective of Johnson is to provide a central location for handling various medical records from a plurality of providers. The providers are not required to adopt a standard set of patient identifiers (Johnson col. 2 lines 16 – 30). This is completely unlike the present system, which is concerned with processing of records within a single healthcare organization "in response to examining said received document to determine whether an identifier is at least one of, missing and unusable, . . . and . . . sorting said processed document based on identifiers appended to said processed document" as recited in claim 1.

Johnson also fails to disclose or suggest the "sorting processor for sorting said processed document based on identifiers appended to said processed document" as is further recited in amended claim 1. Instead, Johnson describes, in its MPI Populator process, relying on demographic data to attempt to identify an individual patient, and linking documents to a Master Patient Index after ascertaining which patient a particular document concerns (Johnson col. 13 lines 1 – 16). This is completely unlike "a sorting processor for sorting said processed document based on identifiers appended to said processed document" as recited in claim 1 of the present arrangement.

Moreover, the Office Action characterizes Johnson's operation of "assign tags to identified elements of text" as disclosing the claimed features of the present system "appending identifiers to the received document by automatically adding identifiers to said received document . . . said identifiers including an encounter identifier . . . a medical record identifier . . . and a patient record section identifier" as recited in claim 1. Johnson does not append identifiers to a document. Instead, Johnson extracts information from a document to build a database record. In Johnson, the original document (in scanned form) is stored unchanged (Johnson col. 7 lines 22 – 23). A rules-based method then attempts to extract information from the scanned file and **build a new set of database entries** based on the extracted information (Johnson col. 7 lines 31 – 57). This is completely unlike the present system, which processes and sorts the documents themselves after appending identifiers to documents with unusable identifiers as provided in claim 1. By the operation of the present system, the original physical documents, now with appended identifiers, are incorporated into the set of identified documents, enabling creation of a valid audit trail that includes the formerly unavailable information. In Johnson, in contrast, the original physical documents remain unusable, and thus the audit process must be augmented by some other, unknown external activities. Johnson does not disclose or suggest "automatically adding identifiers to

said received document" or "a sorting processor for sorting said processed document based on identifiers appended" as recited in claim 1 of the present system.

Johnson nowhere discloses or suggests an identifier "identifying a particular healthcare encounter of a particular patient" as recited in claim 1. The Office Action asserts that the document type and document source (originating organization) are equivalent to the "encounter identifier" of the present system. Applicant respectfully disagrees. It is quite possible for an individual to have more than one encounter with a given health care provider, even on the same day, and even for the same type of procedure. For example, a patient might need to return to the same laboratory or hospital department for a second test, or a second x-ray, generating a new document for each encounter. The documents would be of the same type, and from the same source, but would represent a different encounter. Thus, Johnson does not contemplate examining or appending an identifier "identifying a particular healthcare encounter of a particular patient" as recited in claim 1. In view of these remarks and amendments to the claim, it is respectfully requested that the rejection of claim 1 under U.S.C. 102(b) be withdrawn.

Amended claim 2 is dependent on claim 1 and is considered patentable for the reasons presented earlier with regard to claim 1. Claim 2 is further considered patentable because Johnson neither discloses nor suggests "wherein an unusable identifier is at least one of incorrect, conflicting and illegible" and "said received document is an electronic document comprising data representing a patient medical record associated with a patient encounter with a healthcare organization and said document processor appends data representing said identifiers to said received document" as recited in claim 2. Instead, Johnson merely describes classifying the document as an anomalous document when "the batch extraction process 212 encounters a document for which it cannot extract the necessary information" (Johnson col. 8 lines 17 – 20). Johnson nowhere addresses the possibility that an identifier might be "incorrect, conflicting or illegible" as recited in claim 2. Further, as mentioned earlier with regard to claim 1, Johnson does not disclose or suggest extracting "an encounter identifier" from a received document. Thus, Johnson fails to disclose or suggest wherein "said received document is an electronic document comprising data representing a patient medical record associated with a patient encounter and said document processor **appends data representing said identifiers** to said received document" as recited in claim 2. Since Johnson does not identify a document with "an encounter identifier", Johnson cannot append an encounter identifier to a received document. Unlike the present system, Johnson is thus unable to associate a document with "a particular healthcare encounter of a particular patient" as the claimed system can. Consequently, Applicant respectfully requests that the rejection of claim 2 be withdrawn.

Claims 5 – 8 are dependent on claim 1 and are considered patentable for the reasons presented above with regard to claim 1. Consequently, withdrawal of the rejections of claims 5 – 8 is respectfully requested.

Amended independent claim 19 provides a machine-readable medium containing instructions for activities including receiving a document representing a record associated with a patient encounter with a healthcare organization and appending identifiers to the received document by automatically adding identifiers to the received document to provide a processed document in response to examining the received document to determine whether an identifier in the received document is either missing or unusable. The patient encounter includes an interaction of a patient with a healthcare organization, including a patient visit. The identifiers include an encounter identifier identifying a particular healthcare encounter of a particular patient, a medical record identifier identifying a patient medical record of the particular patient, and a patient record section identifier identifying a particular section of the patient medical record. The activities also include processing the document, including the appended identifiers, for output. Claim 19 provides features similar to those of claim 1 and is considered patentable for the reasons presented above with regard to claim 1. Specifically, Johnson neither discloses nor suggests appending "an encounter identifier identifying a particular healthcare encounter of a particular patient" as recited in claim 19. Consequently, withdrawal of the rejection of claim 19 is respectfully requested.

In view of the above remarks and amendments to the claims, Applicant respectfully submits that Johnson fails to provide enabling disclosure that anticipates the present system as claimed in claims 1, 2, 5 – 8, and 19. Consequently, Applicant respectfully requests that the rejections of claims 1, 2, 5 – 8, and 19 under 35 U.S.C. 102(b) be withdrawn.

Rejection of Claims 3-4 and 9-15 under 35 U.S.C. § 103(a)

Claims 3-4 and 9-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson (U.S. Patent No. 5,664,109).

Claim 3 is dependent on claim 1 and is considered patentable for the reasons presented earlier with regard to claim 1. Claim 3 is further considered patentable because, as the Office Action concedes, Johnson neither discloses nor suggests wherein "said received document is a paper document comprising data representing a patient medical record associated with a patient encounter with a healthcare organization and said document processor appends said identifiers to said received document by imprinting said identifiers

onto said document" as recited in claim 3. Johnson fails to contemplate processing of paper documents beyond the initial scanning of those documents to produce an "OCR file" (Johnson col. 6 lines 44 – 55). In contrast, the present system **imprints** "said identifiers onto said document" as recited in claim 3 to provide information that completes an otherwise incomplete or illegible original document. The physical imprinting of the appended identifiers onto the paper document means that the document itself may now be automatically processed and sorted. This is wholly unlike the operation of the Johnson system whereby the original and unmodified paper documents are merely digitized. Thus, the claimed arrangement advantageously provides a mechanism which is desirable for auditing purposes. Changing the document by imprinting an identifier thereon remedies the document's deficiency and enables more efficient further handling of the document. This feature is nowhere contemplated by Johnson.

The Office Action further asserts that, because Johnson teaches systems for processing electronic and hardcopy documents, it would have been obvious to substitute electronic for paper documents to achieve the results of the present system (Office Action page 9 lines 9 – 12). Applicant respectfully disagrees. The objective of Johnson is to correlate documents from a plurality of health care providers so that the system can identify documents that relate to the same patient without requiring all of the health care providers to adopt a common patient identifier (Johnson Abstract and col. 2 lines 14 – 26). Because the documents in Johnson have been transmitted by the various health care providers to the central record processing system, those documents have already been examined and, possibly, edited or corrected, before they reach the Johnson system. Thus, Johnson need not address the problems of unusable or missing information with the same degree of concern as the originators of the documents, who must ultimately be responsible for the integrity of the information provided.

Contrary to the assertion in the Rejection, the motivation to extend the system of Johnson to handle damaged or incomplete documents is lacking. Johnson merely provides a service based on the data received from the health care providers. The responsibility for the integrity of the original data remains with the providers. Consequently, there is no motivation to extend Johnson to handle corrupted or incomplete documents, since errors in attempting to correct such documents would result in liability because, the Johnson system is not the original source and does not have the capacity to accurately remedy any deficiencies in the documents. In contrast, the claimed system advantageously "automatically add[s] identifiers to said received document to provide a processed document in response to examining said received document to determine whether an identifier in said received document is at least one of, missing and unusable, said patient encounter comprising an interaction of a patient

with a healthcare organization including a patient visit". In view of the above remarks, it is respectfully requested that the rejection of claim 3 under 35 U.S.C. 103(a) be withdrawn.

Claim 4 is dependent on claim 3 and is considered patentable for the reasons presented above with regard to claim 3. Consequently, withdrawal of the rejection of claim 4 under 35 U.S.C. 103(a) is respectfully requested.

Amended independent claim 9 provides a processing device implemented system for sorting records associated with patient encounters with a healthcare organization. The system includes a document processor for receiving physical documents representing records associated with patient encounters with a healthcare organization and for appending identifiers to the received documents. Identifiers are automatically added to the received document to provide a processed document in response to examining the received document to determine whether an identifier in the received document is at least one of missing and unusable. The patient encounter comprises an interaction of a patient with a healthcare organization including a patient visit. The identifiers include an encounter identifier identifying a particular healthcare encounter of a particular patient, a medical record identifier identifying a patient medical record of said particular patient, and a patient record section identifier identifying a particular section of said patient medical record. The system further includes a collator for sorting the received documents based on identifiers appended to the received documents to provide sorted documents. The system also includes a storage processor for storing the sorted documents in memory.

Claim 9 has been amended to clarify the features of the present system. Specifically, the document processor receives physical documents, which the collator, a device for sorting physical documents, sorts based on identifiers appended to those documents. Johnson contemplates no sorting of physical documents, and no handling of such documents beyond their initial scanning to produce an "OCR file" (Johnson col. 6 lines 44 – 55). The Office Action asserts that the operation "Display List of Documents and Document Information for Client" in Johnson (Figure 8, #810) is equivalent to the operation of "sorting said received documents based on identifiers appended to said received documents" recited in claim 9. Applicant respectfully disagrees. For proper auditing of health care provider activities for insurance and legal purposes, specific handling of original documents generated during a patient encounter is required. The present system facilitates such handling and maintenance of such an audit trail. Johnson fails to provide this significant advantage. Moreover, as presented above with regard to claim 3, there is no motivation for extending Johnson to incorporate the additional features of claim 9. Consequently, it is respectfully requested that the rejection of claim 9 under 35 U.S.C. 103(a) be withdrawn.

Claims 10 – 12 are dependent on claim 9 and are considered patentable for the reasons presented above with regard to claim 9. Applicant respectfully requests that the rejection of claims 10 – 12 under 35 U.S.C. 103(a) be withdrawn.

Amended independent claim 13 provides a system for processing records associated with a patient encounter with a healthcare system. The system includes a document processor for receiving a physical document associated with a patient encounter with a healthcare organization and for appending identifiers to the received physical document. The identifiers include an encounter identifier identifying a particular healthcare encounter of a particular patient, a medical record identifier identifying a patient medical record of the particular patient, and a patient record section identifier identifying a particular section of the patient medical record. The system also includes a collator for sorting physical documents including the received physical document based on the appended identifiers to provide sorted documents. The system advantageously enables the correct and efficient processing of physical documents associated with a patient encounter with a healthcare system.

The Office Action rejects claim 13 for the same reasons as applied to claims 1 and 9 earlier. Applicant respectfully disagrees. As presented in some detail earlier, Johnson nowhere discloses or suggests "a collator for sorting physical documents" or "appending identifiers to the received physical document" as recited in claim 13. Consequently, Applicant respectfully requests withdrawal of the rejection of claim 13.

Claims 14 and 15 are dependent on claim 13 and are considered patentable for the reasons presented above with regard to claim 13. Consequently, Applicant respectfully requests withdrawal of the rejection of claims 14 and 15.

In view of the above remarks and amendments to the claims, Applicant respectfully submits that the extension of Johnson to incorporate the features of the present system as claimed in claims 3, 4, and 9 - 15 would not have been obvious to a person of ordinary skill in the art. Consequently, withdrawal of the rejection of claims 3, 4, and 9 - 15 is respectfully requested

Having thus fully addressed Examiner's rejections, it is believed that, in view of the preceding amendments and remarks, this application stands in condition for allowance. Reconsideration and allowance of all claims are respectfully solicited. If, however, the Examiner is of the opinion that such action cannot be taken, the Examiner is invited to

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contact the applicant's attorney at the phone number below, so that a mutually convenient
date and time for a telephone interview may be scheduled.

Please charge the additional fee for the extension of time for a response, pursuant to
37 C.F.R. 1.17(a) to Deposit Account 19-2179.

Respectfully submitted,

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